Table Mountain Wildfire Protection Project
Proposed Action, Purpose and Need
Hat Creek Ranger District, Lassen National Forest
Shasta County, California

Introduction and Background

The Hat Creek Ranger District is proposing the Table Mountain Wildfire Protection Project (Project) to thin existing timber stands and reduce tree densities and fuels on approximately 65 acres surrounding the Table Mountain Communication Site. The thinning would occur adjacent to existing microwave towers, and along three microwave signal paths.

The forest surrounding the communication site is characterized by dense timber and the accumulation of significant ground and ladder fuels that could easily ignite and rapidly spread under adverse fire conditions. In addition, this dense timber has grown to a height that may block communication signals.

The Table Mountain Communication Site is an essential operational element of the California-Oregon Transmission Project (COTP). The COTP is part of a rated transmission path in the western United States and supports regional electricity transfers between California and the Pacific Northwest COTP. The communication site uses microwave towers to send data across several miles. The data is used to remotely operate the transmission grid for the COTP. Microwaves need a clear path to reach their destination. The microwave towers therefore need a clear line-of-sight across the sending and receiving towers. Trees, terrain, and fog can obstruct the microwave signal path. The facilities also serve other tenants at the site, including Jefferson State Radio Associates LLC, AT&T, PG&E, T-Mobile, and Verizon.

The Project is located on Table Mountain approximately 1.5 miles northeast of the junction of Highways 44 and 89, immediately north of the Lassen Volcanic National Park (Figure 1). The legal location is: T31N, R4E, Sections 6 and 7, Mount Diablo Meridian. The Project would begin immediately upon the signing of the Decision Memo.

The Hat Creek Ranger District has made a preliminary assessment that this proposal falls within three categories of actions listed in the Forest Service Handbook (FSH) 1909.15, Chapter 30, Section 31.2; categories of actions for which a project or case file and decision memo are required that are excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) where there are no extraordinary circumstances that would preclude the use of these categories.

Category 3 (36 Code of Federal Regulations (CFR) 220.6(e)3) - Modification of minor special uses of National Forest System (NFS) lands, including approving the use of land for a 40-foot wide utility corridor that crosses one mile of a national forest.

Category 6 (36 CFR 220.6(e)6 – Timber stand and/or wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction.

Category 12 (36 CFR 220.6(e)12 - Harvest of live trees not to exceed 70 acres, requiring no more than ½ mile of temporary road construction... The proposed action may include incidental removal of trees for landings, skid trails, and road clearing.

The Project is designed to be consistent with the direction in the Lassen National Forest (LNF) Land and Resource Management Plan (LRMP 1992) and 1993 Record of Decision (ROD) as amended by the 2004 Sierra Nevada Forest Plan Amendment (SNFPA) Final EIS (FEIS) and ROD and the 2007 Sierra Management Indicator Species (SNF MIS) Amendment FEIS and ROD.

The Project is designed in accordance with the requirements of the National Historic Preservation Act of 1966; the Endangered Species Act of 1993, as amended; and the Federal Clean Water Act.

Purpose and Need for Action

There is a need to provide for adequate defensible space around the communications and critical energy infrastructure in the event of a wildfire. This project is designed to reduce vegetative density and thus the risk of ignitions and spread of wildfires within the Project boundary. These risk reductions would provide an adequate defensible fire protection zone around the communication site facilities for contractors and firefighter personnel.

There is also a need to establish long-term reliability with respect to the strength of the microwave and communications signals being transmitted from the towers. Tree growth that obstructs the microwave beam paths can substantially reduce the quantity and quality of essential operational data used for transmission grid operation and communications applications. This project is designed to minimize tree-related microwave path interference for at least the next ten years. The three microwave signal paths are represented by three “prongs” extending outward from the Project boundary; see Figure 1.

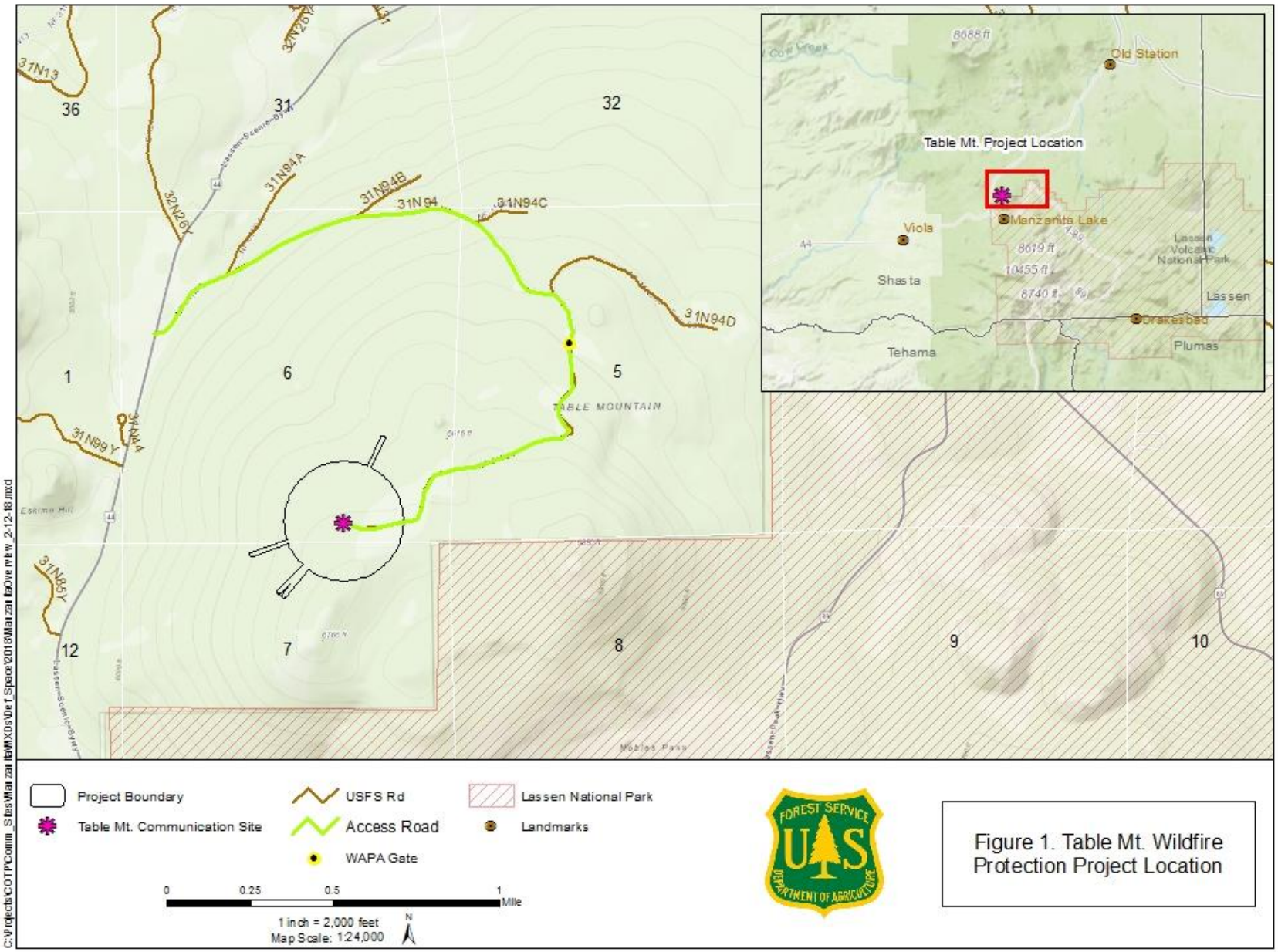

Figure 1. Table Mt. Wildfire Protection Project Location

Proposed Action

The Proposed Action includes timber stand thinning and fuels management activities.

Timber Stand Thinning

The proposed thinning will entail the mechanical removal of trees at the Table Mountain communication site (Figure 1). Thinning objectives will attempt to moderate the potential size, intensity and severity of wildfires by improving tree vigor thru reduction of stand densities. The retained basal area will generally be comprised of the largest trees. Within treatment units, at a minimum, the intent is to provide for an effective fuels treatment. Where existing vegetative conditions are at or near 40 percent canopy cover, the project will be designed to remove the material necessary to meet defensible space fire and fuels objectives while meeting design criteria's in mature forest habitat.

Trees marked for removal will be whole tree yarded and merchantable timber will be removed as saw logs. Logging slash may be machine-piled on site for disposal or removed. Slash disposal will be conducted using accepted piling specifications that include fire-safety considerations when specifying pile sizes, compaction, surrounding fuel breaks, and required fire-line construction. Trees that do not meet merchantability standards will be removed and sold as biomass. Merchantable trees will form the basis for an administrative timber sale that will include, but not necessarily be limited to more specific fire precautions, equipment cleaning, timber removal, slash disposal, and stump treatment conditions. Treatments of stand structures are designed to be effective for a minimum of five to ten years, with a desired target efficacy of 20 years.

Thinning to maintain reliable microwave communication path signal strengths will be designed to minimize re-entries into the Project area within three microwave signal path corridors. The trees to be removed have been determined to be too close to the microwave towers and their current height and growth rates would cause them to interfere with the microwave beam paths, progressively deteriorate communications signal strengths, stability, and quality that is essential for critical infrastructure and communications operations. Individual trees will be thinned within three microwave beam path corridors ranging from 75 to 100-feet wide and of sufficient length to prevent substantial interference with signal strengths for at least the next ten years.

Fuels Management Activities

Project area fuels management treatments will address surface, ladder, and canopy fuels. The Project area contains large volumes of ground and ladder fuels beneath overstory trees. The treatments will remove understory trees where they serve as ladder fuels to the canopy. Surface and ladder fuels will be removed by a combination of hand and mechanical methods followed by prescribed fire to achieve no less than a 40 percent canopy cover consistent with applicable federal guidance. The entire Project area is generally level to gently sloping, therefore no restriction to mechanized techniques of fuel reduction is anticipated. These

techniques will include hand and machine piling of slash, chipping or mastication of surface fuels, and thinning of understory trees. Hand treatments will include hand thinning and piling.

Integrated Design Features

Preliminary assessment has determined that the extraordinary circumstances described in FSH 1909.15, Chapter 30, Section 30.3 are either not applicable or may be mitigated if the following Integrated Design Features (IDFs) are incorporated into the implementation of this project:

- Threatened, endangered, proposed for listing or Forest Service Sensitive wildlife, plants, fish, and amphibians
- Floodplains, wetlands, or municipal watersheds
- Congressionally designated areas, i.e. Wilderness, wilderness study areas or national recreation areas
- Inventoried roadless Areas
- Research Natural Areas
- American Indians and Alaska Native religious area or cultural sites
- Archaeological sites, or historic properties or areas.

IDFs are resource protection measures that are developed by specialists to reduce or eliminate any unwanted environmental effects. They are project specific and incorporated as part of the proposed action in addition to Best Management Practices (BMPs). IDF's ensure the project is consistent with Lassen LRMP standards and guidelines as well as other laws, regulations, and policies. These IDFs are also included as parameters that will be incorporated into treatments, contracts, or used to guide Forest Service personnel in conducting implementation.

Wildlife

If a Spotted Owl nest is detected, a 300-acre Spotted Owl Protected Activity Center will be established around the nesting site

Four of the largest snags per acre will be retained as habitat trees.

Botany

New occurrences of TES plant species discovered before or during ground-disturbing activities will be protected through flag-and-avoid methods.

Hydrology/Soils

Soil quality standards and appropriate best management practices (BMP) that protect forest soils would be implemented for the entire Project. BMP and soil standards are described in Water Quality Management for Forest System Lands in California, Best Management Practices (2011), LNF LRMP (1993), and the 2004 SNFPA ROD.

The areal extent of detrimental soil disturbance would not exceed 15 percent of the area dedicated to growing vegetation. Following implementation, the mechanical treatment units

would be evaluated by a qualified specialist to determine if detrimentally compacted ground exceeds the Forest Plan standard of 15 percent areal extent.

Machine piling operations would remove only enough material to accomplish Project objectives and would minimize the amount of soil being pushed into burn piles. Duff and litter layers would remain as intact as possible, and the turning of equipment would be minimized.

To the extent possible, existing landings and skid trails would be used.

Mechanical equipment would not operate on slopes greater than 35 percent.

Where it exists, large woody material greater than 15 inches in diameter would be retained at a rate of at least five logs per acre.

Transportation

The existing forest transportation system will be utilized to provide access to the Project area and road maintenance would be performed as needed.

Treatments are anticipated to bring the NFS roads used in this Project into conformance with assigned maintenance levels and meet BMPs to minimize erosion and sedimentation. A dust abatement plan will also be included to control erosion from road use.

Cultural Resources

Cultural resources inventories and records searches have indicated that the Project will have no effect on them. The following Standard Resource Protection Measures shall be used, as identified in the Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region (USFS 2018).

- Proposed undertakings shall avoid historic properties. Avoidance means that no activities associated with undertakings that may affect historic properties, unless specifically identified in this Programmatic Agreement, shall occur within historic property boundaries, including any defined buffer zones (see clause 1.1(a), below). Portions of undertakings may need to be modified, redesigned, or eliminated to properly avoid historic properties (Appendix E, Clause 1.1, USFS 2018).
- Buffer zones may be established to ensure added protection where Heritage Program Manager or District Heritage Program Staff determine that they are necessary. The use of buffer zones in avoidance measures may be applicable where setting contributes to property eligibility under 36 CFR 60.4, or where setting may be an important attribute of some types of historic properties (e.g., historic buildings or structures with associated historic landscapes, or traditional

cultural properties important to Indians), or where heavy equipment is used in proximity to historic properties (Appendix E, Clause 1.1[a], USFS 2018).

- Monitoring by heritage program specialists may be used to enhance the effectiveness of protection measures. The results of any monitoring inspections shall be documented in cultural resources reports and the Heritage 2.0 database (Appendix E, Clause 1.5, USFS 2018).

If standard protection measures prove inadequate or the project cannot be modified to protect sites, then full Section 106 consultation shall take place prior to the signing of any decision, as per the Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region (USFS 2018) section 7.8 (c) which states:

(c) Undertakings Requiring Assessment of Adverse Effects and Resolution of Adverse Effects

The Forest Supervisor shall comply with the ACHP's regulations at 36 CFR part 800.5 - 800.6 for undertakings that do not meet the conditions of Stipulation 7.8(a) – 7.8(b)), above. That is, Forests shall comply with 36 CFR 800.5 - 800.6 for undertakings that may adversely affect historic properties and for which it is not possible, or the Forest has elected not to apply standard protection measures prior to the assessment of effects.

Inadvertent Discovery and Human Remains Protocols

Cultural resources that may be encountered include archaeological and historic-period resources. Archaeological materials may include, but are not limited to, flaked stone tools (projectile point, biface, scraper, etc.) and debitage (flakes) made of chert, obsidian, etc., groundstone milling tools and fragments (mortar, pestle, handstone, millingstone, etc.), faunal bones, fire-affected rock, dark middens, housepit depressions and human interments. Historic-era resources may include, but are not limited to, cut (square) nails, containers or miscellaneous hardware, glass fragments, cans with soldered seams or tops, ceramic or stoneware objects or fragments, milled or split lumber, earthworks, feature or structure remains and trash dumps.

If a cultural resource is encountered at any time during the Project, the following steps will be taken immediately:

- Stop all work within 100 feet of the discovery;
- Notify the LNF Heritage Program Manager immediately;
- Leave the site or the artifact untouched;
- Note the circumstances that led to discovery; and

- Do not publicly reveal the location of the resource and ensure the location is secured.

In the event that either cultural resources are discovered or inadvertently affected during implementation of this undertaking, all work shall stop until the situation can be assessed by a qualified archaeologist and reported to the Heritage Program Manager, or assessed by the Heritage Program Manager. The Forest will submit written notification describing the circumstances of the discovery to the Regional Heritage Program Leader and State Historic Preservation Officer within two working days (e.g., letter or email notification). Forests will provide written reports describing the status or resolution of the discovery/inadvertent effect every six months until it is resolved (Section 7.10 Discoveries and Inadvertent Effects, (a) USFS 2013).

No work may proceed in the immediate area until approved by the Heritage Program Manager of the LNF.

If human remains are discovered during the Project, the procedures identified in the Native American Graves Protection and Repatriation Act (NAGPRA) will be closely adhered to and the following steps will be taken:

- Stop all work within 100 feet of the discovery;
- Notify the LNF immediately;
- Notify the county coroner;
- Treat the discovery location as a potential crime scene;
- Treat the remains with respect and do not handle, alter or remove bones;
- Do not publicly reveal the location of the remains; and
- Keep a log of all calls and events related to discovery.

Should inadvertent effects to or unanticipated discoveries of human remains be made during this undertaking, the County Coroner (California Health and Safety Code 7050.5(b)) or Sheriff if ex officio Coroner (Nevada Revised Statutes 259) shall be notified immediately. If the remains are determined to be Native American or if Native American (Indian) cultural items pursuant to the Native American Graves Protection and Repatriation Act are uncovered, the provisions of the Native American Graves Protection and Repatriation Act and its regulations at 43 CFR 10 and ARPA at 43 CFR 7 shall be followed on federal lands. (Section 7.9 Human Remains, (a) USFS 2013). No work may proceed in the immediate area until approved by the Heritage Program Manager of the LNF.

Decision to Be Made

The decision to be made is whether to implement this Project as proposed, as modified to address public concerns, or not at all.